SUMMARY

Significant accomplishments have been achieved as Environmental Restoration (ER) activities reached the mid-point of the fiscal year.

Remediation of contaminated soil continues to progress in the 100 and 300 Areas. Nearly 300,000 tons of contaminated soil have been excavated and disposed in the Environmental Restoration Disposal Facility (ERDF) in fiscal year 1998 (FY98), exceeding planned volumes. Numerous barrels (potentially up to 1,500) have been discovered in the 300 Area 618-4 burial ground. Most barrels are intact and are believed to contain spent cutting oils and uranium metal shavings. Production of 300 Area waste for shipment to the ERDF has been slowed considerably as the barrels are carefully exhumed and set aside for further characterization.

Five pump-and-treat systems are removing contaminants from millions of liters of groundwater. All are operating beyond planned availabilities. The *Columbia River Comprehensive Impact Assessment* (CRICA) was completed and transmitted to the regulators, meeting the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) milestone.

The new Groundwater/Vadose Zone (GW/VZ) Integration Project was established to integrate groundwater issues with below surface remediation work. The GW/VZ project team is comprised of personnel from the Environmental Restoration Contractor (ERC), Project Hanford Management Contractor (PHMC), and Pacific Northwest National Laboratory (Pacific Northwest).

Decontamination and decommissioning (D&D) work continued to focus on facility demolition and interim safe storage (ISS) of the C Reactor block, and on decommissioning the highly radioactive 233-S Plutonium Concentration Facility. Through March, the C Reactor “footprint” has been reduced by about 80 percent. ISS of the F and DR reactors has also been initiated. Demolition of the 108F biology laboratory was initiated, but the project was stopped when available funding was exhausted.

Surveillance and maintenance (S&M) activities continued on deactivated Hanford Site facilities. Hazard removal activities have also been performed. Radiation surveys and deactivation confirmation activities continued for those 200 Area facilities that are in transition to the ER project (primarily PUREX and B Plant).

N Basin cleanout is nearing completion. At the end of March, all high exposure rate hardware has been removed; nearly all of the sediment has been relocated; a shielding installation contractor has mobilized, and plans are in place for water and sediment removal. The project team faced many challenges during the first half of FY98 that resulted in a regulator authorization of an extension of the *Tri-Party Agreement* milestone

for N Reactor deactivation from April 1 to July 31. Hardware and debris removal turned out to be far more extensive than planned (11 additional monoliths were needed); sediment transfer was slowed by discovery of additional debris and fuel chips beyond the original estimate (over 6,700 cubic feet of sediment have been relocated to-date vs. the estimated 5,900 cubic feet); and radiation exposure of the basin walls was much higher than expected, necessitating the need for additional shielding panels. Future work on sediment removal and water disposition is also part of the extension (i.e., the sediment constituents turned out to be transuranic, causing much more extensive handling and disposal requirements), and limitations at the 200 Area Effluent Treatment Facility (ETF) required a planning reduction for unloading the one million gallons of contaminated water from nine tankers per day to six.

Through March, the ER Project is $4.1 million (6 percent) behind schedule. This is due primarily to the discovery of additional plumes at the liquid waste remediation sites in the 100 Areas, a delay in the start of the C Reactor fuel storage basin demolition while regulatory requirements were addressed, elevated derived air concentrations, and the need for more extensive safety documentation. These factors delayed the start of the Operational Readiness Review (ORR) at the 233-S demolition project. Costs through March are $1.9 million (3 percent) under budget as a result of remedial action efficiencies in the 100 Areas, reduced groundwater resin changeouts, and savings in S&M activities.

Fiscal-year-to-date milestone performance (EA) for ER shows that three milestones (100 percent) were completed ahead of schedule (includes Tri-Party Agreement milestone M-16-11 completed in FY 1997). There are two EA milestones identified as in jeopardy. Tri-Party Agreement Milestone M-16-26A, Initiate Remedial Action for 100-HR-1 0U, was impacted by the additional plumes found in the 100-BC-1 Area. Tri-Party Agreement Milestone M-16-03C, Submit to EPA and Ecology 618-4 Burial Ground Exception Report as Final, was impacted by the need to replan due to work scope outside of waste profile and additional worker protection requirements.

There were no lost work-day cases in March.

ACCOMPLISHMENTS

- **Remedial Action and Waste Disposal Project Highlights**

  Over 54,500 tons of contaminated soil were excavated from the 100 B/C, 100 D, and 300 Area waste sites in March. This brings the fiscal year-to-date total to nearly 300,000 tons. Since inception in July 1996, 832,124 tons have been removed and transported to the ERDF. In March, 814,005 ton-miles of waste transportation were achieved.

B/C Area Remediation. A 12-inch diameter drain line was unearthed at the east end of the 116-B-11 retention basin on March 3. The drain line was wrapped with an unknown insulation material. The excavation was discontinued and material samples were sent to a laboratory for analysis. Laboratory results identified the wrapping to contain 6-8 percent chrysotile asbestos. The pipe was re-covered with soil and the area posted until abatement measures are arranged.

The baseline excavation was completed at the 116-C-5 retention basins on March 25, but the discovery of additional plumes will require continued remediation work. Splitting of all pipe stored in the 116-B-1 process effluent trench waste site and sizing/splitting of pipe stored at the 116-C-5 retention basins was also completed. The elemental lead from the 116-C-5 retention basins floor was shipped to the ERDF for encapsulation and final disposal.

In March, 21,118 tons of waste were excavated from the 116-B-11 and 116-C-5 retention basins. Excavation of the area is about 40 percent complete. In FY98 136,732 tons of material have been removed and disposed of. Since inception, 434,782 tons have been removed and disposed of from 100-BC.

D Area Remediation. Excavation of soil and materials from the 107-D4 (100-D-18) waste site was completed on March 10, and from the 107-D2 (100-D-21) waste site on March 17. Six drums of lead containing waste excavated from 107-D1 (100-D-22) last year were sent to ERDF for encapsulation and final disposal. The draft verification package for the 107-D5 waste disposal trench (100-D-4) was submitted on March 18.

Regulator comments on the 100-D Ponds *Resource Conservation and Recovery Act* (RCRA) *Closure Plan* were received from the State of Washington, Department of Ecology (Ecology), and were incorporated into the document. When the closure plan is incorporated into Modification D of the *Hanford Facility Wide Dangerous Waste Permit*, all known activities with 100-D Pond closure will have been accomplished.

In March, 25,591 tons of waste were excavated from the 116-D-7 retention basin and the 107-D2 (100-D-21) and 107-D4 (100-D-18) sludge disposal. In FY98, 130,503 tons of material have been removed and disposed of. Since inception, 310,643 tons have been removed and disposed of 100-DR.

200 Area Remedial Actions. The Tri-Party Agreement change package that implements the approved *200 Area Implementation Plan* was signed by Tri-Party Agreement representatives.

ERDF Expansion. The Request for Proposal (RFP) for construction of ERDF cells 3 and 4 was issued to 18 bidders on March 5. A pre-bid conference and facility tour was held on March 12. Bids are due on April 10, with award scheduled for May 29.

The RFP for construction quality assurance of the ERDF expansion was issued to nine prospective bidders on March 11. A pre-bid conference and facility tour was held on March 19. Bids are due April 13.

The field trial demonstration of the upgraded laser-induced breakdown spectroscopy system started the week of March 27, at the subcontractor facilities in Vermont. If the demonstration is successful, the system will be deployed (together with its cone penetrometer vehicle) in late-April at the 300-FF-1 sites and then at the100-D sites. The system will be used for uranium and chromium detection.

300 Area Remediation. Numerous barrels have been discovered in the 300 Area 618-4 burial ground. Most are intact and are believed to contain spent cutting oils and metal shavings (primarily uranium). The barrels are being individually isolated and placed in “overpack” containers which are then submersed in mineral oil to avoid a potential fire hazard (the shavings are potentially pyrophoric). Frequent temperature measurements are also being taken to ensure safety. Up to 1,500 barrels are expected to be unearthed at the site that require this special handling. Production of waste for shipment to the ERDF has been slowed considerably as the barrels are carefully exhumed and prepared for disposal. Stabilization, treatment, and disposal of these drummed wastes are out of planned ER Project work scope, and will require additional funding.

The project team developed and implemented new procedures for excavation and bulk transport of asbestos-containing materials. The first shipment of asbestos contaminated soil from the 300 Area was placed into the ERDF. *Occupation Safety and Health Act* (OSHA) required worker training was provided to all personnel involved in the operation.

On March 25, elevated levels of lead were detected in routine samples of waste shipped from the 300 Area 618-4 burial ground. Subsequent sampling indicates elevated lead concentrations are prevalent throughout the site. Additional analysis and new field screening criteria will need to be established before bulk shipments resume. Lead contaminated soils have also been found at the 300-FF-1 landfill 1D. These excavated soils cannot be disposed of at the ERDF until a plan for further characterization/treatment/disposal is developed. If treatment is required, additional funds will be required. The project team will pursue a potential variance with the regulators to allow for ERDF disposal.

The draft verification report for the 300 Area process trench (316-5) was completed on March 30.

In March, 6,402 tons of excavated waste from 300-FF-1 were shipped to the ERDF. In FY 1998, 27,906 tons of material have been removed and disposed of. Since inception 58,307 tons have been removed and disposed from 300-FF-1.

General. Solidification of contaminated oil from N Area was completed on March 7. Following solidification, the waste met the ERDF waste acceptance criteria and was disposed in the ERDF trench on March 9.

The *N Area Proposed Plan and Corrective Measures Study (CMS) for the 100-NR-1 Operable Unit Treatment, Storage, and Disposal* (TSD) *Site*; the proposed plan and CMS for the 100-NR-1 Source Site and Groundwater Operable Unit; and the *Engineering Evaluation/Cost Analysis* for the 100-N Area ancillary facilities were issued on March 9 for public review. The public comment period for these documents began on March 16, and will run for a 45 day period.

- **Groundwater Management Highlights**

Five pump and treat systems are operating. The 200-ZP-2 vapor extraction unit, which was shut down for upgrades approximately 6 months ago, was restarted on March 30. All units operated at or above planned availability levels.

Well Sampling, Maintenance, and Decommissioning. Two wells were decommissioned this month, bringing the total to-date to 23. No additional well decommissioning is planned this fiscal year, due to limited funding.

Long-Term Monitoring. Samples have been collected from 539 long-term monitoring wells to-date, which is slightly ahead of the 533 samples planned. The *Hanford Composite Analysis Report* was also completed and transmitted to DOE Headquarters (HQ). Spectral gamma logging was performed in the 216-Z-1A crib. Results are being evaluated.

Interim Action Monitoring. The *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) monthly groundwater sampling for the 100-HR-3, 100-KR-4, and 200-ZP-1 interim action pump-and-treat systems, and semi-annual sampling at the 100-NR-2 Operable Unit, were completed this month. The 200-UP-1 and 200-ZP-1 *Pump and Treat First Quarter FY98 Reporting Technical Memorandum* was issued on March 18. The Groundwater Project

presented the results of the aquifer tube sampling program to the Natural Resource Trustee Council on March 13. A local television station also televised a segment on the aquifer sampling tube program. This presentation demonstrated the use of the tube sampling technology at the river shore environment.

The permitting process began for 10 RCRA compliant vadose monitoring wells in the 200 West Area and one pump and treat well in the 100 Area. The vadose monitoring work will be performed under a work order to the PHMC as a part of the Tank Farms project. Drilling is scheduled to begin in June.

Columbia River Comprehensive Impact Assessment. The CRICA was completed and transmitted to the regulators, meeting *Tri-Party Agreement* target milestone M-15-80-T01.

200-ZP-1 Pump & Treat. A contract was awarded for upgrading the 200-ZP-1 facility. Modifications include replacement of a pump, installation of new check valves, and modifications in the motor control centers. In March, 28,988,000 liters of groundwater have been processed, with 569 kg of carbon tetrachloride removed. For FY 1998, 154,420,000 liters have been processed to date, removing 2,590 kg of carbon tetrachloride. From inception-to-date, 433,128,000 liters have been processed.

200-ZP-2 Vapor Extraction. The system was shut down approximately six months ago for upgrades, and has not operated this fiscal year. The unit was restarted on March 30.

N-Springs Pump & Treat. Resin changeout was completed. In March, 10,647,000 liters of groundwater have been processed, with 0.010 curies of strontium removed. For FY98, 52,407,000 liters of groundwater have been processed for FY98 to date; removing 0.047 curies of strontium. From inception-to-date, 245,343,000 liters have been processed.

HR-3 Pump & Treat. For March, 26,250,000 liters of groundwater have been processed, with 4.7 kg of chromium removed. In FY98, 134,795,000 liters have been processed to date; 17.4 kg of chromium has been removed. From inception-to-date, 208,584,000 liters of groundwater have been processed from, with 21.83 kg of chromium removed. 266,584,000 liters have been processed to-date (this includes D Area transfer treatability tests before 100-HR-3 start-up).

KR-4 Pump & Treat. During resin changeout, noticeable amounts of calcium were found in the vessels. Samples of the water indicate extremely hard water with high

concentrations of calcium is being processed. In March, 23,856,000 liters of groundwater have been processed, removing 3.01 kg of chromium. In FY98/ inception-to-date, 115,274,000 liters have been processed removing 14.5 kg of chromium.

UP-1 Pump & Treat. For the month of March, 9,372,000 liters of groundwater have been processed. In FY98, 36,673,000 liters have been processed to date. In addition, 88,078,000 liters have been transported to the ETF for processing. From inception-to-date, 224,444,000 liters have been processed at both facilities.

Other. Disposal of organic/carbonaceous waste at the ERDF continues to be an issue. Presently, the project cannot dispose of the waste due to regulatory requirements. Since the waste must be stored until a site-wide authorization is in place, it has been determined that the central waste complex in the 200 Area is the optimum location for storage due to its ability for protection from extreme conditions. Disposition considerations at the facility will be included in the *FY99-FY01 Detailed Work Plan* (DWP), which is expected to be approved in late September.

- **Groundwater/Vadose Zone Integration Project**

A project team, comprised of ERC, PHMC, and Pacific Northwest personnel has been established. The *Management and Integration of Hanford Site Groundwater and Vadose Zone Activities* document (DOE/RL-98-03, Draft A), which was issued in February, was revised to incorporate HQ comments. The plan includes outlines and narratives for development of a *Project Specification Plan, Project Management Plan, Cost and Schedule Baseline,* and a *Public Involvement Plan.* ER Project management is preparing to meet with DOE Under-Secretary Moniz in Washington D.C. in early April to discuss the plan.

A science and technology roadmapping process has been developed. The roadmapping process will be used to make science and technology investment decisions and ensure that the investments are focused on critical path problems.

Based on the existing SX Tank Farm Expert Panel, the Groundwater/Vadose Zone Integration Project team is developing a protocol and potential list of candidates for expanding the scope of the panel to cover groundwater and vadose zone activities. The modified panel will perform independent technical peer reviews.

A national laboratory participation process has been developed and is being implemented for the GW/VZ Project. On March 19, the GW/VZ project team met with DOE national laboratory participants to begin mapping out a path forward.

The project team has initiated work scope formulation meetings with other Hanford Site projects that encompass or impact the groundwater and vadose zone activities. These meetings will continue through April, and will form the basis of the preliminary *Long Range Plan* for the project.

- **Decontamination and Decommissioning**

Decommissioning of C Reactor made good progress this month. Field activities for ISS of the F and DR reactors was initiated. Preparations for the ORR at the 233-S Plutonium Concentration Facility are nearing completion. Overall, decommissioning work is about two weeks behind schedule, but recovery actions have cut the schedule variance in half from last month. Full schedule recovery is expected in the next few months.

C Reactor ISS. Demolition and cleanup of the outer rod room is about 97 percent complete at month-end. There is approximately 12 feet of the exterior walls remaining that will require concrete saw cutting to separate them from the safe storage enclosure (SSE). This work is in progress. Removal and disposal of the vertical safety rod drive units was also completed.

Installation of the fuel storage basin (FSB) transfer pit cover was completed. This completes the last D&D work in a high radiation area.

The SSE work is progressing well, on an accelerated schedule, but is still about two weeks behind schedule due to a late start. All reactor facility roofs and supporting structures have been removed, and installation of support steel is underway. The installation subcontractor has committed to an overtime schedule to recover the schedule, which is expected within about six weeks. The SSE is a galvanized steel roof being installed over the reactor block.

Four new technologies were demonstrated this month. Demonstrations included material for stabilizing the reactor block, a dust suppression system, a nitrogen-cooled saw for cutting thick concrete, and a portable sub-surface soil sampling unit. Nineteen of the 20 technology demonstrations planned have now been completed. The final demonstration commitment is expected to be performed in April. Several additional demonstrations are also being considered.

Other work completed in March included loose decontamination and fixative application at the FSB transfer pit and metal exam facility, below-grade FSB pour backs at the discharge chute, and FSB concrete core and soil sampling (the analysis results are expected in mid-April).

F and DR Reactors Interim Safe Storage. Site mobilization activities at both the F and DR reactor sites were completed this month. The first direct work activity (biological cleanup) was initiated at F Reactor. Phase I radiological scoping surveys were also completed at F Reactor. Similar surveys were initiated at the DR Reactor site.

The Phase I Data Quality Objective (DQO) checklist, scoping documents, and design workbook draft were completed. A DQO review meeting with the regulators was held on March 31.

The F Reactor decisional draft *Audible Safety Analysis/Final Hazard Classification* (ASA/FHC) was completed and is under review. The draft *Engineering Evaluation/Cost Analysis* (EE/CA) was completed and transmitted for internal review. The *Health and Safety Plan* (HASP) for the DR Reactor was also completed.

233-S Plutonium Concentration Facility Demolition. A major focus in March was on planning and preparatory work for the April ORR. Over 90 percent of the ORR pre-start items have been completed.

All electrical components and conduit were removed from the non-process pipe gallery.

Two burial boxes were loaded with waste from the SWP change room, equipment room, and non-process pipe gallery and were shipped to the ERDF. 30 boxes of waste have been shipped to the ERDF in FY98. A pipe trench mock-up was constructed for testing various methods of pipe cutting and removal.

- **Surveillance/Maintenance and Transition Projects**

S&M activities focused on 200 Area facilities in March.

REDOX/221-U Facility. A highly contaminated pipe in the 221-U facility was relocated, which allowed the canyon to be downposted from a high radiation area. This pipe had caused past contamination and radiation exposure problems.

A draft safety evaluation was completed for demolition of the plutonium load-out hood demolition. Other radiation safety documentation and waste management instructions are also being completed.

Canyon Disposition Initiative (CDI). Upgrades to the 221-U canyon crane proceeded on schedule. Non-destructive testing of the hooks, and wire rope replacement activities, are scheduled for early next month. The CDI project was established to test the feasibility of utilizing the canyon cells as a future burial site.

PUREX Transition. Annual calibrations for the month of March were completed at the 202-S (PUREX) facility. This was the first of the calibrations on the SAMCONS remote monitoring system. There were approximately 212 instruments calibrated and loops checked during this process. Installation of a dedicated phone line and validation of the remote monitoring system operation was also performed. This system allows monitoring of the 202-S complex from a remote location, which eliminated daily personnel entries into the building and has thus reduced overall S&M costs.

Removal of the 202-S south main switchgear transformers was completed. The transformers were shipped to a vendor for disposal. The connecting electrical cabinets were removed to a storage site for recycling as scrap.

During the quarterly surveillances of the PUREX facility, a number of chemical leaks from pipe flanges and valve packings were noted. Investigation and clean up activities are in progress to correct the problems.

B Plant Transition. Forty-four additional end points were verified this month. This brings the total verifications completed to 897, out of 1,785 to be performed.

Other S&M Activities. Prep work and sampling of the 105-F glass dump site completed. The area was backfilled to place it in a safe configuration until final remediation of the site is scheduled.

- **N Area Project Highlights**

The regulators approved a Tri-Party Agreement change request authorizing the extension of the Tri-Party Agreement milestone for N Reactor deactivation from May 1 to July 31. The extension was requested primarily due to a reduction in the water offloading capability at the Effluent Treatment Facility in the 200 Area. This will require additional time to remove the 1 million gallons of contaminated N Basin water.

Water clarity was poor at the beginning of the month, but improved after airlift operations were performed in the north basin and segregation pit. A third shift began work on March 30 for 24-hour/day operations, focusing on south basin debris removal and sediment vacuuming.

N Basin/107-N Dewatering. Forty-thousand (40,000) gallons of N Basin water were transferred to the 200 Area ETF. Water and sediment removal from 107-N Recirculation Facility to the N Basin North Cask Pit was completed. Removal of acid and caustic lines, and related cleanup activities, remain to be completed at the 107-N facility deactivation.

Hardware Removal. Removal of high exposure rate hardware (HERH) and low dose debris from N Basin continued. Sediment relocation, low dose hardware removal, and HERH debris removal were completed in the north basin. Two monoliths were grouted and shipped to the ERDF for disposal. Three monoliths of hardware and debris remain to be filled and dispositioned. The final large equipment item was removed from the N Basin this month.

Fuel Fragments Disposition. Additional fuel fragments were retrieved and packaged. Approximately 81 lbs. of fuel pieces were readied for shipment to the 300 Area.

Radiation Shielding Installation. Approximately 98 percent of interferences to shielding installation have been removed. A *Notice to Proceed* was given to the N Basin shielding installation subcontractor on March 26. Mobilization began as scheduled. On-site construction activities began on March 30. Eighteen of 65 covers were installed.

Sediment Removal. The regulators concurred with the method the project is using for calculating the transuranic content of solidified sediment collected in the North Cask Pit. *Process Control Plan* (PCP) testing of the solidification process was performed on an N Basin sediment sample. The actual dose rate from the PCP solidified billet was 2-3 times higher than the calculated dose rate. The project team is evaluating the impact. It is felt that a worst case scenario would result in site road closures during transport of the disposal liners to the ERDF.

- **Program Management and Support**

A request to the City of Richland was initiated for providing potable water to ERC in the 100 Areas via a modular filtration skid in place of the existing water treatment facility (183-N).

A review of the current office products subcontract shows that the ER Project is approximately one-third below projected spending (a 51,000 underrun). The projected spending on this subcontract was established based on historical spending/pricing prior to the April 1997 subcontract start date.

The draft *General Design Criteria*, BHI-00747, Revision 1, was issued. Revision 1 provides guidance for determining applicability of the GDC to nuclear and non-nuclear facilities.

Preparations are being completed for an April 2 public hearing on the *Proposals for Cleanup at Hanford's 100 N Area*. Focus sheets and related documentation have been developed and transmitted to interested parties. A notice was also placed in the newspaper for encouraging public involvement. The 45-day public comment will close on April 29.

The ER Project has been working with other site contractors on radiological control site-wide emergency procedures. These procedures will be incorporated into the RL *Emergency Response Manual* (DOE-RL 0223). The procedures will also complement the previous revisions to the DOE-RL 94-02 *Emergency Plan*. Activity on this work continues to ramp down as the corrective actions are implemented.

ISSUES

- **Groundwater/Vadose Integration Funding:** Limited funding for the GW/VZ project has been obtained to date. Current funding is expected to be depleted in late May. Additional funding in the amount of $1.5 million is needed to continue GW/VZ integration work through FY98.

  Strategy/Status: ER Management is actively pursuing additional funding.

- **N Basin Water Disposition:** Offloading capability at the Effluent Treatment Facility of at least 6 tankers per day is essential to meet the July 31 TPA milestone for completion of N Reactor Deactivation.

  Strategy/Status: Coordination meetings between RI, BHI, and ETF management continue.

COST PERFORMANCE ($M)

	BCWP	ACWP	VARIANCE
Total ER Project	$66.9	$65.0	$1.9

The $1.9M (3 percent) favorable cost variance is within the ±10 percent variance threshold.

SCHEDULE PERFORMANCE ($M)

	BCWP	BCWS	VARIANCE
Total ER Project	$66.9	$70.9	($4.1)

The $4.1M (6 percent) unfavorable schedule variance is due primarily to the discovery of additional plumes at the liquid waste remediation sites in the 100 Areas, a delay in the start of the C Reactor fuel storage basin demolition while regulatory requirements were addressed, and elevated derived air concentrations plus more extensive safety documentation delayed the start of the Operational Readiness Review at the 233-S demolition project.

MILESTONE EXCEPTION REPORT

Number/ WBS	Level	Milestone Title	Baseline Date	Forecast Completion Date

FORECAST DELAY – 2

M-16-26A	**EA**	Initiate Remedial Action for 100-HR-1 OU	9/30/98	3/31/99
1.6.1.01	**Cause:**	Start date impacted by additional plumes found in the 100-BC-1 Area.		
	Impact:	The start date is delayed; there are no other impacts.		
	Corrective Action:	None.		
M-16-03C	**EA**	Submit to EPA and Ecology 618-4 Burial	8/31/98	10/15/98
1.6.1.03		Ground Exc. Rpt as final		
	Cause:	Replanning due to work scope outside of waste profile; additional worker protection requirements slowed work.		
	Impact:	The completion date is delayed; there are no other impacts.		
	Corrective Action:	None.		

COST VARIANCE ANALYSIS

WBS	COST VARIANCE: $1.9M

SCHEDULE VARIANCE ANALYSIS

WBS	SCHEDULE VARIANCE: ($4.1M)